

Abstract prepared for submittal to the  
**13th International Conference on**  
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**Experimental studies of hole-boring in thin solid and foam targets,** J. D. MOODY, C. BROWN, B. A. HAMMEL, S. P. HATCHETT, D. E. HINKEL, M. H. KEY, J. A. KOCH, B. LASINSKI, A. B. LANGDON, B. J. MACGOWAN, A. OFFENBERGER, D. PENNINGTON, M. D. PERRY, M. TABAK, V. YANOVSKY, K. B. WHARTON, AND S. C. WILKS, *Lawrence Livermore National Laboratory, Livermore, CA\**—The success of the fast ignitor may rely on the ability to create an evacuated channel through which the ignitor pulse can propagate into the overdense region close to the core plasma. We are conducting experiments which investigate the propagation of a channeling/hole-boring laser pulse through overdense ( $n_e/n_c > 10$ ) CH. The experiments consist of propagating 30 J in a variable pulse length (0.4 to 30 ps) through solid CH and CH foam targets. The  $\rho r$  of these targets ranges from 1 to  $20 \times 10^{-4}$  g/cm<sup>2</sup>. We add varying amounts of plasma atmosphere in front of the solid CH target by preforming a plasma with the Nova laser. Measurements include transmitted light, backscattered light, and x-ray emission. We will discuss the experimental results and compare with simulations.

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John D. Moody  
 Lawrence Livermore National Laboratory  
 7000 East Avenue L-473  
 Livermore, CA 94550